SEQUENCE LISTING

- (1) GENERAL INFORMATION
- (i) APPLICANT: Duft, Bradford
 Kolterman, Orville
- (ii) TITLE OF THE INVENTION: METHODS FOR TREATING OBESITY
- (iii) NUMBER OF SEQUENCES: 15
- (iv) CORRESPONDENCE ADDRESS:
 - (A) ADDRESSEE: LYON & LYON
 - (B) STREET: 633 WEST FIFTH STREET, SUITE 4700
 - (C) CITY: LOS ANGELES
 - (D) STATE: CA
 - (E) COUNTRY: USA
 - (F) ZIP: 90071-2066
- (v) COMPUTER READABLE FORM:
 - (A) MEDIUM TYPE: Diskette
 - (B) COMPUTER: IBM Compatible
 - (C) OPERATING SYSTEM: DOS
 - (D) SOFTWARE: FastSEQ Version 2.0
- (vi) CURRENT APPLICATION DATA:
 - (A) APPLICATION NUMBER: 08/870,762
 - (B) FILING DATE: 06-JUN-1997
 - (C) CLASSIFICATION:
- (vii) PRIOR APPLICATION DATA:
 - (A) APPLICATION NUMBER:
 - (B) FILING DATE:
- (viii) ATTORNEY/AGENT INFORMATION:
 - (A) NAME: DUFT, BRADFORD J
 - (B) REGISTRATION NUMBER: 32,219
 - (C) REFERENCE/DOCKET NUMBER: 226/104
- (ix) TELECOMMUNICATION INFORMATION:
 - (A) TELEPHONE: 619-552-2200
 - (B) TELEFAX: 619-552-0159
 - (C) TELEX:

(2) INFORMATION FOR SEQ ID NO:1:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 37 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- (ix) FEATURE:
 - (B) LOCATION: 2,7.
 - (D) OTHER INFORMATION: disulfide bridge between the Cys residues
 - (B) LOCATION: 37
 - (D) OTHER INFORMATION: amidated Tyr (Tyrosinamide)
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:

Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe

1 5 10 15

Leu Val His Ser Ser Asn Asn Phe Gly Pro Ile Leu Pro Pro Thr

20 25 30

Asn Val Gly Ser Asn Thr Tyr

35

- (2) INFORMATION FOR SEQ ID NO:2:
- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 37 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- (ix) FEATURE:
 - (B) LOCATION: 2,7
 - (D) OTHER INFORMATION: disulfide bridge between

the Cys residues

- (B) LOCATION: 37
- (D) OTHER INFORMATION: amidated Tyr (Tyrosinamide)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:

Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe

1 5 10 15

Leu Val Arg Ser Ser Asn Asn Phe Gly Pro Ile Leu Pro Pro Thr

20 25 30

Asn Val Gly Ser Asn Thr Tyr

35

(2) INFORMATION FOR SEQ ID NO:3:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 37 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: Peptide
- (ix) FEATURE:
 - (B) LOCATION: 2,7
 - (D) OTHER INFORMATION: disulfide bridge between the Cys residues
 - (B) LOCATION: 37
 - (D) OTHER INFORMATION: amidated Tyr (Tyrosinamide)
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3:

 Lys
 Cys
 Asn
 Thr
 Ala
 Thr
 Cys
 Ala
 Thr
 Gln
 Arg
 Leu
 Ala
 And
 A

- (2) INFORMATION FOR SEQ ID NO:4:
- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 37 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: Peptide

- (ix) FEATURE:
 - (B) LOCATION: 2,7
 - (D) OTHER INFORMATION: disulfide bridge between the Cys residues
 - (B) LOCATION: 37
 - (D) OTHER INFORMATION: amidated Tyr (Tyrosinamide)
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:4:

Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe

1 5 10 15

Leu Val His Ser Ser Asn Asn Phe Gly Ala Ile Leu Pro Ser Thr
20 25 30

Asn Val Gly Ser Asn Thr Tyr
35

- (2) INFORMATION FOR SEQ ID NO:5:
- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 37 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- (ix) FEATURE:
 - (B) LOCATION: 2,7
 - (D) OTHER INFORMATION: disulfide bridge between the Cys residues
 - (B) LOCATION: 37
 - (D) OTHER INFORMATION: amidated Tyr (Tyrosinamide)
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:5:

Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe

1 5 10 15

Leu Val His Ser Ser Asn Asn Phe Gly Pro Val Leu Pro Pro Thr

20 25 30

Asn Val Gly Ser Asn Thr Tyr

35

- (2) INFORMATION FOR SEQ ID NO:6:
- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 37 amino acids

- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- (ix) FEATURE:
 - (B) LOCATION: 2,7
 - (D) OTHER INFORMATION: linkage between the Asp and Lys residues
 - (B) LOCATION: 37
 - (D) OTHER INFORMATION: amidated Tyr (Tyrosinamide)
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:6:

Lys Asp Asn Thr Ala Thr Lys Ala Thr Gln Arg Leu Ala Asn Phe

1 5 10 15

Leu Val His Ser Ser Asn Asn Phe Gly Ala Ile Leu Ser Ser Thr

20 25 30

Asn Val Gly Ser Asn Thr Tyr

- (2) INFORMATION FOR SEQ ID NO:7:
- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 36 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- (ix) FEATURE:
 - (B) LOCATION: 1,6
 - (D) OTHER INFORMATION: disulfide bridge between the Cys residues
 - (B) LOCATION: 36
 - (D) OTHER INFORMATION: amidated Tyr (Tyrosinamide)
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:7:

Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu

1 5 10 15

Val His Ser Ser Asn Asn Phe Gly Ala Ile Leu Ser Ser Thr Asn
20 25 30

Val Gly Ser Asn Thr Tyr

(2) INFORMATION FOR SEQ ID NO:8:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 37 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- (ix) FEATURE:
 - (B) LOCATION: 2,7
 - (D) OTHER INFORMATION: disulfide bridge between the Cys residues
 - (B) LOCATION: 37
 - (D) OTHER INFORMATION: amidated Tyr (Tyrosinamide)
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:8:

Ala Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe

1 5 10 15

Leu Val His Ser Ser Asn Asn Phe Gly Ala Ile Leu Ser Ser Thr

20 25 30

Asn Val Gly Ser Asn Thr Tyr

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- (2) INFORMATION FOR SEQ ID NO:9:
- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 37 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- (ix) FEATURE:
 - (B) LOCATION: 2,7
 - (D) OTHER INFORMATION: disulfide bridge between
 - the Cys residues
 - (B) LOCATION: 37
 - (D) OTHER INFORMATION: amidated Tyr (Tyrosinamide)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:9:

Ser Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe

1 5 10 15

Leu Val His Ser Ser Asn Asn Phe Gly Ala Ile Leu Ser Ser Thr

20 25 30

Asn Val Gly Ser Asn Thr Tyr

35

(2) INFORMATION FOR SEQ ID NO:10:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 37 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- (ix) FEATURE:
 - (B) LOCATION: 2,7
 - (D) OTHER INFORMATION: disulfide bridge between the Cys residues
 - (B) LOCATION: 37
 - (D) OTHER INFORMATION: amidated Tyr (Tyrosinamide)
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:10:

Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe

1 5 10 15

Leu Val His Ser Ser Asn Asn Phe Gly Ala Ile Leu Ser Pro Thr

20 25 30

Asn Val Gly Ser Asn Thr Tyr

35

(2) INFORMATION FOR SEQ ID NO:11:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 37 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

- (ii) MOLECULE TYPE: peptide
- (ix) FEATURE:
 - (B) LOCATION: 2,7
 - (D) OTHER INFORMATION: disulfide bridge between the Cys residues
 - (B) LOCATION: 37
 - (D) OTHER INFORMATION: amidated Tyr (Tyrosinamide)
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:11:

Lys Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe

1 5 10 15

Leu Val His Ser Ser Asn Asn Phe Gly Pro Ile Leu Pro Ser Thr

20 25 30

Asn Val Gly Ser Asn Thr Tyr

35

- (2) INFORMATION FOR SEQ ID NO:12:
- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 36 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- (ix) FEATURE:
 - (B) LOCATION: 1,6
 - (D) OTHER INFORMATION: disulfide bridge between the Cys residues
 - (B) LOCATION: 36
 - (D) OTHER INFORMATION: amidated Tyr (Tyrosinamide)
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:12:

Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu

1 5 10 15

Val His Ser Ser Asn Asn Phe Gly Pro Ile Leu Pro Ser Thr Asn
20 25 30

Val Gly Ser Asn Thr Tyr
35

(2) INFORMATION FOR SEQ ID NO:13:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 36 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- (ix) FEATURE:
 - (B) LOCATION: 1,6
 - (D) OTHER INFORMATION: disulfide bridge between the Cys residues
 - (B) LOCATION: 36
 - (D) OTHER INFORMATION: amidated Tyr (Tyrosinamide)
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:13:

 Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu

 1
 5
 10
 15

 Val Arg Ser Ser Asn Asn Phe Gly Pro Ile Leu Pro Ser Thr Asn
 20
 25
 30

 Val Gly Ser Asn Thr Tyr
 35

- (2) INFORMATION FOR SEQ ID NO:14:
- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 36 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- (ix) FEATURE:
 - (B) LOCATION: 1,6
 - (D) OTHER INFORMATION: disulfide bridge between the Cys residues
 - (B) LOCATION: 36
 - (D) OTHER INFORMATION: amidated Tyr (Tyrosinamide)
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:14:

Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu

10 15 1 Val Arg Ser Ser Asn Asn Phe Gly Pro Ile Leu Pro Pro Thr Asn 20 25 Val Gly Ser Asn Thr Tyr 35

(2) INFORMATION FOR SEQ ID NO:15:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 36 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- (ix) FEATURE:
 - (B) LOCATION: 1,6
 - (D) OTHER INFORMATION: disulfide bridge between the Cys residues
 - (B) LOCATION: 36
 - (D) OTHER INFORMATION: amidated Tyr (Tyrosinamide)
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:15:

Cys Asn Thr Ala Thr Cys Ala Thr Gln Arg Leu Ala Asn Phe Leu 10 Val His Ser Ser Asn Asn Phe Gly Pro Ile Leu Pro Pro Thr Asn 20 30 Val Gly Ser Asn Thr Tyr

35